



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

IAN A. BOWLES  
Secretary

LAURIE BURT  
Commissioner

## **Interim Guidance for Facility Operators on Handling Products Containing Mercury at Permitted Solid Waste Facilities**

Effective May 1, 2008



**Interim Guidance for Facility Operators on Handling Products  
Containing Mercury at Permitted Solid Waste Facilities**  
Effective May 1, 2008

The Massachusetts Mercury Management Act prohibits the disposal of products containing mercury in solid waste. MassDEP regulations will be proposed to implement this law (310 CMR 76.00) specifying how end-of-life mercury-added products must be managed:

- End-of-life mercury-added products that are "hazardous waste" must be managed as hazardous waste in accordance with 310 CMR 30.000.
- End-of-life mercury-added products that are "universal waste" must be managed as either hazardous waste in accordance with 310 CMR 30.000 or as universal wastes in accordance with 310 CMR 30.1000.
- End-of-life mercury-added products that are not hazardous waste must be:
  - ✓ Separated from solid waste.
  - ✓ Handled and stored to minimize breakage and release of mercury.
  - ✓ Recycled to reclaim the mercury.

MassDEP will propose amendments to regulations at 310 CMR 19.130 and 310 CMR 19.207 to require permitted solid waste facilities to implement Operation and Maintenance ("O&M") procedures for managing products containing mercury. The management procedures will be established in 310 CMR 76.00 and further described in guidance. Facilities will be required to incorporate the procedures for managing mercury-added products into their O&M plans upon the effective date of the final regulations. The Department reserves the right to require a facility to file a permit modification to ensure compliance with the updated regulations.

*Please note, MassDEP is not proposing to include mercury-added products in the waste ban list at 310 CMR 19.017. Therefore, facilities will not need to update their waste ban plans. Comprehensive load inspections and failed load logs will not be required.*

### **General Guidance**

Products containing mercury must be separated and stored separately from solid waste and the mercury must be recycled. In order to reduce recycling and disposal costs, solid waste facility staff may separate a component containing mercury (e.g., switches, lamps or batteries) from a larger product, or may choose to recycle the entire product. However, please note that glass ampoules removed from products, such as thermostats, must be handled as hazardous waste.

All mercury items set aside at the facility must be sent to a facility that properly manages mercury components.

**EXAMPLES OF PRODUCTS THAT MAY CONTAIN MERCURY AT END-OF-LIFE**

Hazardous Waste	Non-hazardous Waste
<i>These items must be handled as either hazardous waste or as universal waste</i>	<ul style="list-style-type: none"> <li>• Green cap fluorescent lamps and low mercury compact fluorescent lamps (CFLs)</li> </ul>
<ul style="list-style-type: none"> <li>• Bilge pumps and sump pumps (some contain mercury switches)</li> <li>• Button batteries</li> <li>• Electrical switches</li> <li>• Sphygmomanometers</li> <li>• Sphygmomanometers</li> <li>• Thermometers</li> <li>• Thermostats</li> <li>• Tilt switches and mercury thermocouples removed from appliances / white goods</li> <li>• Neon lamps and some fluorescent lamps, such as 4ft straight tubes, u-tubes, circular</li> </ul>	<ul style="list-style-type: none"> <li>• Electronic devices with screens that are backlit using a fluorescent lamp, such as:               <ul style="list-style-type: none"> <li>- Flat panel computer monitors</li> <li>- Flat panel TVs</li> <li>- Handheld gaming devices</li> <li>- Portable DVD players</li> </ul> </li> <li>• Some appliances/white goods such as:               <ul style="list-style-type: none"> <li>- Gas ovens with mercury thermocouple</li> <li>- Chest freezers with tilt switches in lid</li> </ul> </li> <li>• Toys containing button cell batteries that are not designed to be removed by the user/parent</li> </ul>
<i>These items must be handled as hazardous waste</i>	
<ul style="list-style-type: none"> <li>• Elemental mercury<sup>1</sup></li> <li>• Glass ampoules of mercury removed from devices</li> </ul>	
<sup>1</sup> Elemental mercury is not covered by the Mercury Management Act or by 310 CMR 76.00 but is mentioned here to remind facilities that it is hazardous waste	

**Specific Guidance for Common Products**

There is a wide range of products that contain mercury. Readily identifiable and recoverable mercury-added products need to be separated for recycling when safe to do so. MassDEP provides guidance on how to manage common mercury-added products below:

- **Appliances or White Goods (e.g., ovens and chest freezers)** – Separate from the load in accordance with your waste ban plan (since they are already included as white goods). If the appliance has a mercury switch or thermocouple, remove the device and place it in a Universal Waste bucket or contract with someone to remove the mercury component before the appliance is crushed or shredded at a recycling facility.

- ***Bilge or sump pump*** – if the pump has a tethered float switch, assume it has a mercury switch, clip the switch off and place it in Universal Waste bucket. The motor can be recycled or disposed as trash.
- ***Electronic devices with backlit screens (e.g., laptops and flat panel screens)*** – Separate from the load and contract with an electronics recycler that properly manages the mercury components.
- ***Mercury added lamps (e.g., fluorescent lamps)***

**Individual Broken** – *no action required; handle with solid waste*

**Individual Intact** – *attempt to remove if safe to do so and handle as universal waste*

***Multiple lamps likely from the same generator*** – try to find out where the load came from, and contact the MassDEP Mercury Hotline (1-800-963-7287) with as much of the following information as possible: generator name and location, type of truck and/or container, truck number(s), hauler. If the lamps are broken, no separation is required. If lamps are intact, attempt to remove if safe to do so and handle as universal waste.

- ***Products with button cell batteries (e.g., watches, calculators, small flashing toys)*** – when readily identifiable and retrievable, separate for recycling
- ***Sphygmomanometer (blood pressure cuff)*** – separate from the load and handle as universal waste
- ***Thermostat*** – remove and handle as universal waste

### For More Information

- Mercury recycling facilities in the northeastern United States are listed on MassDEP's web site:  
[www.mass.gov/dep/toxics/stypes/hgcycle.htm](http://www.mass.gov/dep/toxics/stypes/hgcycle.htm)
- Handling of universal waste, please refer to the fact sheet on MassDEP's web site:  
[www.mass.gov/dep/recycle/hazardous/univrule.doc](http://www.mass.gov/dep/recycle/hazardous/univrule.doc) or  
[www.mass.gov/dep/recycle/hazardous/univrule.pdf](http://www.mass.gov/dep/recycle/hazardous/univrule.pdf)
- Guidance on cleaning up mercury spills:  
[www.mass.gov/dep/toxics/stypes/spill.htm](http://www.mass.gov/dep/toxics/stypes/spill.htm)
- Guidance on cleaning up broken compact fluorescent light bulbs:  
[www.mass.gov/dep/toxics/stypes/brkncfls.htm](http://www.mass.gov/dep/toxics/stypes/brkncfls.htm)